

From *The Day Sailer*, #100 Spring 1986

For the New Owner of a Day Sailer

Prepared by the Association, the following pages from the Owner's Manual of the Precision Day Sailer I, are reprinted here with the object of providing useful and interesting information to new owners of all Day Sailers.

Introduction

How that you have purchased a new Precision Day Sailer I, I hope you will be interested to learn in the pages that follow something of the design and history of the boat and of the purpose and programs of the Day Sailer Association. You'll also find useful tips from veteran skippers about rigging, tuning, sailing, cruising, racing, trailering, and maintaining your boat.

But first things first: If you do not already know how to sail, try to find an experienced sailor who can teach you. Trying to teach oneself how to sail is a waste of time, may be hazardous, and may get you into bad habits. Read one or more of the many good books on learning to sail, and if possible find another Day Sailor to teach you how to best sail your boat.

History and Development of the Day Sailer I

The Day Sailer I began in 1956 as a twinkle in the eyes of George O'Day, U.S. Olympic gold medallist and president of the O'Day Boat building Company in Fall River, Massachusetts. O'Day had some highly original ideas about a new boat he wanted to build for families who wanted to sail together. Some of his ideas were a boom high enough to avoid decapitating the crew, a boat that was dry, easily trailerable, easily driven by a 1-1/2 to 3 horsepower outboard, capable of carrying a spinnaker, stable, safe, roomy, and comfortable, as well as easy to handle. In collaboration with his friend Uffa Fox, the celebrated English designer of the high performance International 14, he worked out the design. The first Day Sailers were built by O'Day in 1957. By 1960 the Day Sailer Association had been organized and seven fleets established. In 1985 49 fleets with 429 boats were active, and 231 additional boats were classified as independents, making a total of 660 boats in the Association. Every year a national championship regatta has taken place on various saltwater and freshwater sailing grounds across the country. Regional and interregional regattas were also held annually. By 1985 13,000 Day Sailers had been built.

In 1970, after George O'Day had left, the O'Day Company introduced a new model, Day Sailer II, and eventually turned over to the Day Sailer Association the exclusive right to build and market the original design, now called Day Sailer I. Built and marketed by Precision Boat Works of Sarasota, Florida, under license from the Association, Day Sailer I is in our opinion the fastest, safest, roomiest, and sturdiest Day Sailer ever built since George O'Day invented it. It is unquestionably a superb family boat for casual sailing, cruising, and racing. The Precision Day Sailer I is the only stock Day Sailer that is competitive in fleet racing without modification. Its white sails are of superior design, cloth, and construction. The centerboard and rudder are hydrodynamic, faster and safer than flat foils. The tapered mast is light and stiff, with uniform bending characteristics.

The Day Sailer Association

The DSA comprises 660 Day Sailer owners. It is a national organization that promotes the class, organizes and charters local fleets, and sanctions yearly regional and national regattas coast to coast. The Association publishes a Handbook containing its constitution, by-laws, and specifications, and an annual Directory of Members. Perhaps its most important publication is a quarterly magazine called THE DAY SAILER, which publishes news of fleet and individual activities and opinions, racing and cruising news, articles on maintenance, equipment, tactics, how-to-do-it, and racing rules. The Association address is c/o Dolores Bayer, Secretary, P.O. Box 1918, Gulf Shores, Al. 36542. *[Now Pat Skeen, 1936 Danebo, Eugene, OR 97402-1135- Ed.]*

To get the greatest enjoyment from your Day Sailer, you should join the Day Sailer Association. Dues are \$20.00 a year, but your first year is free if your dealer sends in your name, address, sail/hull number to Precision Boat Works, 8517 Bradenton Rd., Sarasota, FL 33580. *[Note: Precision no longer builds the Day Sailer I - Ed.]*

In addition to enhancing your enjoyment of your boat, a strong Association works to the benefit of all Day Sailer owners in that it increases the value of a used boat, because the demand for used Day Sailers, always strong, is greatly increased by the perceived benefits of a large, active, national association. Another way to increase your enjoyment of your boat is to seek out other Day Sailer owners to exchange opinions, information, and perhaps to sail or race with. The Day Sailer class is noted for its friendly, helpful spirit, always ready to help another Day Sailer. If at all possible you should also join a fleet. If you do, you will undoubtedly enjoy its social and sailing programs. The names and locations of the fleets and Independents are listed in the annual Directory, which you receive when you join the Association.

Maintenance Suggestions

Your Precision Day Sailer I is a superbly well built and equipped boat. With reasonable care it will maintain its handsome appearance and structural integrity for many years. Like earlier Day Sailer I's, its resale value will remain surprisingly high. Some of the most desirable Day Sailer I's are those built fifteen *[Forty!- Ed.]* or more years ago.

1. Keep your boat clean all the time:, bottom, deck, cockpit, rudder, centerboard, spars, and sails. More in salt water than in fresh, more in warm water than in cold, but to some extent in all waters, the bottom will gather various forms of marine growth and dirt. One way to keep the bottom clean is to "dry sail." That means to lift your boat out of the water when not actually sailing.

Some yacht clubs now require that you dry sail because there's not enough room in the anchorage for all the boats, but such yacht clubs will provide a hoist *[or Ramp -Ed.]*, a hose for wash down, and a place to store boats on trailers. Most Day Sailers, however, are not dry sailed but remain in the water most or all of the sailing season.

Such boats in salt water will require an anti-fouling paint application once a year. In fresh water, a rubbing down of the hull once a week or

so should keep it clean and smooth.

The rudder and centerboard, collectively referred to as the foils, should also be kept clean. Salt-water sailing is hard on a boat. If you do sail your boat in salt water, you should frequently wash with fresh water, the hull, both bottom and topsides, spars and sails.

2. Preserving the Finish and Gel Coat

The chief spoilers of the hull's finish are hitting, bumping, and scraping other boats, docks, and moorings. Do your best not to let it happen. It is usually best to moor your boat out with a sufficient anchor and chain than to keep her at a dock. Be careful when loading and unloading your boat from the trailer, and protect her from pebble, rock, or oil damage while trailering. When your boat is out of the water, do not leave her exposed for long periods of time to bright sun or to harsh weather conditions. At least once a year thoroughly clean, polish, and wax the hull, but don't wax the deck and the cockpit area (too slippery). A lot of good cleaning, polishing, and waxing preparations are on the market and can be found at marinas and chandleries. Keep in mind that the gel coat is porous.

3. Off Season Storage

Store your boat under cover that will protect the finish from continuous exposure to the sun and the weather. You'll find that the original brightness of the finish will gradually fade, but keeping it covered when possible will slow down the process. If you clean, polish, and wax the gel coat finish at least once a year, the hull will keep its attractive luster.

Lightly oil the spars (mast, boom, spinnaker pole) and all hardware that has moving parts, checking their condition and tightening any screws, pins or bolts that need it.

Examine the shrouds (side stays), the forestay, and their fittings to check for wear. The same for all running rigging, i.e., main, jib, and spinnaker halyards and sheets.

Check the bow eye to be sure that it is not loose, bent or cracked.

Check the rudder blade and centerboard for gouges and scratches.

Repair as necessary.

Fold or roll the main and jib sails in such a way that they will not wrinkle. The spinnaker, however, you can stuff in its bag. Your sails may need repairs or cleaning after each sailing season. If so, find a reputable sailmaker to advise and help. All sails will eventually have to be replaced if they are to give you top boat speed. The jib, under the greatest strain, goes first and will need replacing twice as often as the main. The sun is the greatest enemy of modern sails, the wind next most harmful. The ultra violet rays of the sun slowly destroy the sail fabric; the wind stretches it out of shape. Except when actually sailing, keep your sails covered. Winds of over twenty miles per hour can blow out a sail all too fast. When in doubt, consult an experienced sailor or a reputable sailmaker. Don't at any time allow your main or jib to become wrinkled. The jib should be rolled and covered between sailings. The main may be carefully folded, or it may be rolled on the boom, but covered always when not in use.

4. Supporting the Hull

When the boat is out of the water, take care that it is supported in a way that avoids putting pressures on the hull sufficient to cause flexing. The boat should be properly supported at intervals along the keel but with some weight carried by supports placed well away from the keel at the widest part of the hull.

That is the way a Day Sailer rests in a well-designed trailer. Check the trailer frequently to see that the supports are carrying the weight evenly. Adjust as necessary. Sometimes in long time storage the boat is suspended from a hoist by one or more straps under the hull. Some boat owners prefer to relieve some of the weight on the trailer by using straps and hoist when the -boat will not be moved for a long time. It is also satisfactory to allow the hull to rest on the ground or on a floor, provided the finish is protected against scratches and gouges. Sturdy saw horses will also do the job.

5. Repair Work

- a. Use only the right tools and materials. Plan your work carefully, seek good advice, preferably from experienced Day Sailer owners.
- b. Never use nails. Use only stainless steel screws, nuts, bolts, and washers.
- c. Avoid making holes in the deck or hull unless absolutely necessary. Fill unused small deck holes with a polyester epoxy resin.
- d. Use backing plates for hardware that sustains upward pressure.
- e. For work on spars and standing rigging consult a well recommended professional. In replacing running rigging take care to get wire or line of the right diameter, length, and construction.
- f. Keep the bottom clean and smooth. Consult an expert to find out how.
- g. Don't be tempted into buying cheap hardware, fittings, rigging, or paint. Your boat deserves the best. The best will save you money.

Sails and Running Rigging

Your Precision Day Sailer I is equipped with a very high quality mainsail and jib, both designed for serious competition.

Be sure the mainsail battens are properly placed and secured. Take good care of them. With good care and under conditions of normal use (whatever that is, say sixty days of sailing a year) your main and jib should remain competitive for two or three years, and perfectly usable for another five to ten. When sails need replacing, go to a well-recommended sailmaker. In 1985 state-of-the-art sails (main and jib) cost about \$600.00, but many sailmakers give a substantial discount if the sails are ordered several months before the sailing season.

Your Precision Day Sailer I does not come with a spinnaker but if you enjoy sailing, you will greatly add to the fun by using a spinnaker. A new state-of-the-art Day Sailer spinnaker costs as much as \$300.00 but others, including second hand ones, may be much less. The mast furnished by Precision contains an exit block for the internal spinnaker halyard. That's the essential (and hard to install) fitting. In addition to the spinnaker itself, you will need to furnish a spinnaker pole, a spinnaker ring on the mast (not difficult), and the blocks and cleats to secure the following lines:

Spinnaker halyard—34', 3/16 prestretched Dacron
Spinnaker sheets— two at 32', prestretched Dacron
Pole downhaul— 12 '6", 3/16, prestretched Dacron
Topping lift—17', 3/16 prestretched Dacron

All the above gear with complete instructions is offered as a spinnaker kit option by Precision.

Other Day Sailer line lengths «

Main halyard — wire 23', 1/16" or 27'. 1/4 prestretched Dacron

Jib halyard—wire, 15'9", 1/16" or 20', 1/4 prestretched Dacron

Main sheet—44', 5/16 Samson braid or equivalent

Jib sheet—26', 5/16 Samson braid or equivalent

Safety

Like all sports, sailing has hazards, fortunately not very many, and all substantially minimized by being aware of them and taking proper precautions. The experienced sailor naturally regards strong winds, with the consequent danger of capsizing, as the chief hazard of sailing. It is not, and not be any hazard at all if the skipper, crew, and equipment are prepared.

The greatest hazard to sailing the Day Sailer I is not capsizing, but overhead electric power lines and lightning. When the mast makes contact with a power line or is struck by lightning, death or substantial injury to the crew and major damage to the boat may result. Be on the alert for power lines when sailing in strange waters and in the vicinity of boatyards and marinas, launching ramps, and highways. Sailing in electrical storms is equally dangerous.

Both are killers. Stay alert and alive.

Capsizing

Your Day Sailer might: capsize under unusual conditions, such as the skipper's failure to pay attention or a sudden overpowering gust. But capsizing is not dangerous if the skipper, crew, and equipment are properly prepared for it. The best preparation is to capsize on purpose to dispel uncertainty and fear. Have another boat standing by for the first intentional capsize, to help if necessary. Discover that capsizing is not the end of the world.

In a capsize all the crew should leave the boat on the high side, the side opposite the mainsail, thus avoiding being unintentionally entangled in the mainsail or mainsheet. No one should swim away from the boat, which will always float. Stay with the boat until she is righted and sailing again or until help comes. It is not difficult to right the boat. One person stands on the centerboard, which should be fully extended. If the wind is heavy, it is advisable to let the halyards go and pull the sails down. If there are more than two in the crew, one might temporarily hold a cushion or life jacket under the top of the mast to make sure the boat does not "turtle," i.e., turn upside down. The person standing on the centerboard and pulling against a high side shroud or gunwale can slowly right the boat and lift the mast out of the water. The Precision Day Sailer I has sufficient flotation to carry 350 pounds of crew weight and keep the gunwales above water when the boat is full of water. Keep the boat steady and level. Use a pail or two to get as much water as possible out of the boat fast. As

soon as the boat is dry, hoist the main and sail off. The moral is to routinely carry enough bailers to move a lot of water fast.

Avoiding Capsizing

The first step is to install a boom vang, which is a line or wire fitting with a considerable mechanical advantage that runs from a point on the boom to a point on the mast just above deck level. The vang allows the boom to move in and out freely but prevents it from lifting high up into the air, as it has a strong tendency to do when the boat is on a broad reach or on a run before the wind. When the boom rises, the mainsail becomes out of control and may well cause a broach or a reverse, i.e., to windward, capsize, a happening known as the death roll. In lighter airs, the vang holds the boom down to increase the efficient area of the mainsail, thus increasing the boat's speed. The installation of the vang will allow the boat to sail in heavier air more safely and comfortably. Your dealer should be able to provide one or tell you who can. But even with a vang, one should not sail the Day Sailer I in winds that are too heavy for the skill of the skipper and crew. The inexperienced Day Sailer skipper should not sail the boat when whitecaps appear, as they do when the wind strengthens to 15-17 miles per hour. The experienced skipper and crew can manage winds in the 20-25 per hour range, but that is about the limit, though some Day Sailer skippers are fascinated by the challenge of heavy air and sail well in winds up to 30-35 m.p.h.

Most Day Sailer fleets will ordinarily not race in winds above 20 m.p.h.

Though there is no danger in heeling, that is, allowing the boat to tip to leeward under the pressure of the wind, the boat moves fastest when it is absolutely level in the water. When a breeze blows that tends to heel the boat, the skipper and crew should sit on the windward side to counteract the heeling tendency, which, if it is so strong as to bury the boat's leeward rail, makes the boat vulnerable to an unexpected gust and a possible capsize.

In such a breeze it is best (and fastest) to ease the main sheet to the point where the boat is level or nearly so. When that is done, the mainsail will be flapping slightly near the mast. The unexpected gust can be countered by luffing, that is heading the boat slightly up into the wind, though not enough to lose all sail power.

Do not ease the jib, though, except in emergencies or when changing course. The jib tails are an important safety (and racing) aid. They are simply one or more pairs of ribbons attached to the jib luff six inches or so back from the edge of the sail and from four to six feet above the deck. Of each pair, one ribbon is attached to one side of the sail directly opposite the other, on the other side of the sail. When the boat is sailing upwind, the jib tails tell you when the jib sheet is properly adjusted. If the boat is sailing too close to the wind for any particular setting of the sheet, the windward jib tail will rise and flutter. If the boat is sailing too far off the wind, the leeward jib tail will rise and flutter. When both jib tails stream out horizontally, the jib sheet is correctly trimmed for the course being sailed. When there is an obvious danger of capsizing, the crew should all be wearing life jackets. At all times enough jackets should

be easily reachable.

Safety Equipment

Always carry on board in accessible locations a Coast Guard approved life jacket for each person aboard. You should also carry one or more Coast Guard approved floating cushions to throw to a person accidentally overboard without a life jacket. In addition be sure you meet all state and federal safety requirements.

Six other important but often overlooked items of safety equipment:

1. An anchor with sufficient line on good condition to hold the boat in the depth of water in which you sail. A small Danforth anchor and a line three times the depth of water will do the trick.
2. Always carry a paddle or two in the boat.
3. You should always carry a stout towline at least 30 feet long. When your boat is to be lowed, secure your end to your mast (not to the bow eye) to enable you to steer your boat while being lowed. For the same reason if another boat is being lowed behind you, secure your end of the other boat's towline to your mast.
4. Carry a couple of pails or other bailing gear that will enable you to get a lot of water out fast.
5. A first-aid kit.
6. Extra line.

Miscellaneous

1. A Day Sailer being towed will swerve wildly from side to side, becoming unmanageable unless the centerboard is down or someone steers the towed boat.

2. Placing the crew properly in the boat when sailing is important. The skipper should always sit on the windward side, or in very light winds, amidships. The crew should always sit forward of the skipper to allow the tiller to swing freely. In addition, the skipper and crew should place themselves so that the boat is level both sideways (athwartship) and front and back (fore and aft), except as noted under "rigging and Tuning the Day Sailer for Racing."

Proper weight placement makes the boat sail faster and safer.

3. A highly useful book all aspects of all kinds of sailing vessels is *Royce's Sailing Illustrated*, 8th revised Edition, Western Marine Enterprises, Inc., Box Q, Ventura, CA 93002. \$8.95. It may be ordered through most bookstores or directly from the publisher.